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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/645,186	08/24/2000	Donald Fedyk	10360-062001	4310

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EXAMINER

BLOUNT, STEVEN

ART UNIT PAPER NUMBER

2661

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/645,186

Applicant(s)

FEDYK ET AL.

Examiner

Steven Blount

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 3, 5 - 14, 17 - 22, 24 - 33, 36 - 41, 44 - 53, 57 - 59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 3, 5 - 14, 17 - 22, 24 - 33, 36 - 41, 44 - 53, 57 - 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
3. Claims 1, 2, 39, and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent 6,778,535 to Ash.

With regard to claim 1, Ash teaches selecting a path with least hops (col 3 line 8), Determining if there is sufficient bandwidth (col 3 line 13), deciding whether to allocate the network resource based on the amount of resource (bandwidth) and number of hops (col 3 line 15) and if the resource is not allocated, selecting a network path with a progressively larger number of hops (col 3 line 31).

With regard to claim 2, see col 3 line 14 (bandwidth)

With regard to claim 39, see the discussion above wherein the internal circuitry which implements the method is described in relation to the rejection of the method claims.

With regard to claim 40, see col 3 line 14.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 7, 9 – 10, 20 – 21, 24, 28 – 29, 47 – 48, and 51 – 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,778,535 to Ash.

With regard to claim 5, Ash teaches the invention as described above, but does not teach the use of a topology database used to determine the path. The examiner takes Official Notice that a database is typically used to store data such as this which is required to determine the correct number of hops, and it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a topology database in Ash in order to provide the correct number of hops in determining the path between the source and destination.

With regard to claim 7, Ash teaches the invention as described above, but does not explicitly teach that the process is terminated if the resource is allocated. However, the examiner notes that it would be perfectly obvious to one of ordinary skill in the art at the time of the invention to halt the process if a best route has been found.

With regard to claims 9 – 10, it would be obvious to compare the amount of network resource needed to the resource available on the path but not used by existing packets.

With regard to claims 20 – 21, see the rejection of claims 1 – 2 above, and note that it would be obvious to implement the method of Ash in software in order to insure its proper repeatability.

With regard to claims 28 – 29 and 47 – 48 and 51 – 52, see the discussion above as well as the fact that different priority levels are taken account of in Ash via the class of service.

With regard to claim 24, the examiner takes Official Notice that topology databases for holding this kind of data are well known in the art, as discussed above with respect to claim 5.

6. Claims 3, 6, and 43 – 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,778,535 to Ash as applied to claims 5, 7, 9 – 10, 20 – 21, 24, 28 – 29, 47 – 48, and 51 – 52 above, and further in view of U.S. patent 6,034,946 to Roginsky.

Ash teaches the invention as described above, but does not teach comparing the number of hops to a predetermined maximum acceptable cost. This is taught in Roginsky. See col 4 lines 60+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have allocated bandwidth of Ash to a path whose cost is less than a

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maximum in light of Roginsky in order to provide a further means for determining the most efficient allocation of resources on the network.

7. Claims 8, 13, 17 - 19, 27, 32, 36, 37, 38, 46, 53, and 57 – 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,778,535 to Ash as applied to claims 5, 7, 9 – 10, 20 – 21, 24, 28 – 29, 47 – 48, and 51 – 52 above, and further in view of U.S. patent 6,665,273 to Goguen et al.

Ash teaches the invention as described above but does not teach implementing it in a MPLS system. Goguen et al teaches, in col 7 lines 20+, col 6 lines 53+, and col 9 lines 1+ a similar system for routing packets in a MPLS system.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have implemented Ash in a MPLS system in light of Goguen et al in order to further provide an efficient means for routing the packets.

8. Claims 11 – 12, 22, 24 – 26, 30 – 31, 41, and 49 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,778,535 to Ash as applied to claims 5, 7, 9 – 10, 20 – 21, 24, 28 – 29, 47 – 48, and 51 – 52 above, and further in view of U.S. patent 5,687,167 to Bertin et al.

Ash teaches the invention as described above but does not teach taking a portion of the network resource used by a data path at a different priority to accommodate the data path at the predetermined priority level. Bertin (167) teaches taking bandwidth from a link with lower priority and giving it to a link of higher priority that needs it. See col 3 lines 50+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided bandwidth to the higher priority connections which lack it from the lower priority connections in Ash in light of the teachings of Bertin et al (167) in order to maximize resources.

9. Claims 14, 33, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,778,535 to Ash and U.S. patent 6,665,273 to Goguen et al as applied above to claims 8, 13, 17, 27, 32, 37, 38, 53, and 57, and further in view of U.S. patent 6,034,946 to Roginsky et al.

Ash/Goguen et al teach the invention as described above, but do not teach using the unused bandwidth if the cost is below a predetermined maximum cost. As discussed above, Roginsky et al teaches this in col 4, lines 60+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the unused bandwidth if the cost is below a predetermined maximum cost in Ash/Goguen et al in light of the teachings of Roginsky et al in order to provide a means for further optimizing the network resources.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 - 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ajit Patel
Primary Examiner

SB

8/22/05